

**POSTER 048.****Low-Back Injury Among Prehospital Care Personnel: A Descriptive Study***James E. Brown, MD\**

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**Objectives:** To determine the risk factors and describe the prevalence and characteristics for low-back injury in prehospital care personnel.

**Methods:** All National Registry EMTs were surveyed about low-back injury as part of their 1993 recertification process. Their responses to the survey instrument were compiled and evaluated using SAS version 6.09 on a VAX system.

**Results:** Out of 22,689 EMTs surveyed, 11,384 responded (50.2%). Of the respondents, 33.7% stated that they had experienced low-back pain (LBP) related to EMS activity. Almost a quarter (21.6%) of the respondents knew of a fellow EMT who had experienced LBP performing EMS duties, and 15.2% reported taking at least one sick day due to job-related LBP. However, only 9.4% reported filing a workers' compensation claims for LBP. There was no significant difference in low-back injury rates between those with or without safety in-service training ( $p = 0.339$ ). Additionally, personnel subjected to pre-employment physicals had a higher incidence of low-back injury (36.03% vs 32.79%;  $p = 0.001$ ). Males reported a higher incidence of LBP (35% vs 30%;  $p < 0.001$ ). Risk factors associated with increased work-related low-back injury included: higher level of certification (odds ratio [OR] = 2.08) and years certified (OR = 1.08). Factors associated with decreased risk of work-related LBP included: age (OR = 0.99), volunteer (OR = 0.77), and utilization of a risk manager (OR = 0.61).

**Conclusion:** Low-back pain is a more common occurrence among prehospital care personnel than may have been reported previously. Current injury prevention interventions may be inadequate. Further study is required to limit injury and disability among prehospital care providers.

**POSTER 050.****A Survey Assessment of the Educational Impact of a Bystander Care Program for Rural Highway Crashes**

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**Purpose:** To assess the lay public's knowledge of victim care at a crash scene and dissemination of a multimedia bystander care program.

**Methods:** *Setting:* Two rural Indiana counties. *Participants:*  $\geq 16$  years with valid driver's license; randomly selected from county telephone books. *Interventions:* A multimedia bystander educational program was disseminated by paramedics in the experimental county, while the other county served as a control. Pre- and post-telephone surveys were administered to assess attitudes and knowledge about critical bystander actions (start the breathing, stop the bleeding, and call for help) at the scene of the crash.

**Results:** Between November 1993 and February 1994, 378 subjects were enrolled—189 in each county. A total of 158 (44%) were lost to follow-up. On the post-telephone survey, subjects in both counties significantly ( $p < 0.001$ ) had increased their willingness to stop and knowledge of how to start the breathing and stop the bleeding. In the control county (without 9-1-1), subjects' knowledge of the correct emergency number increased 67% on the post-survey. Program dissemination occurred in 2% of the county residents.

**Conclusions:** Gaps existed in the lay public's knowledge and attitude about stopping and performing critical actions at a crash scene. The pre-/post-telephone survey motivated subjects to find out what to do at a crash scene and increased their willingness to stop. This raises the question of using pre/post telephone surveys, possibly accompanied by mailings as an educational strategy in disseminating injury-control information to the lay public.